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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/054,582 | 01/22/2002 | Kiyohito Kaneko | 04610.006001 | 7719 |
| 22511 | 7590 | 10/31/2005 | | |
| OSHA LIANG L.L.P. 1221 MCKINNEY STREET SUITE 2800 HOUSTON, TX 77010 | | | EXAMINER WONG, WARNER | |
| | | | ART UNIT 2668 | PAPER NUMBER |

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/054,582 | Applicant(s) KANEKO, KIYOHITO | |
| | Examiner Warner Wong | Art Unit 2668 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Specification

Claim Objections

1. Claim 15 is objected to because of the following informalities: Grammatical errors on page 27, lines 23-24, "recived paket" should be corrected to "received packet". Appropriate correction is required.

Drawings

2. The drawings are objected to because they lack descriptive labeling for each element in figures 1 and 11. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 6 and 12** are rejected under 35 U.S.C. 102(e) as being anticipated by Mizutani (2001/0022780).

Mizutani describes a method (official notice taken that method can be implemented by wireless devices or a processing program) for a wireless system with each interconnecting device (fig. 1, communication terminals 101-116) comprising steps of:

a. transferring a received packet (if judged to be) a kind of packet necessary to be transferred to a different connecting device (paragraph 63, "If [packet's address] not the terminal that starts communication") and which is a packet not previously transferred by the interconnecting device (paragraph 63, "It is determined whether the received packet is previously received packet").

b. when the packet is received by the interconnecting device, also judge based on transfer history information of the received packet, whether or not the packet is a packet previously transferred by the interconnecting device (paragraph 63, "Whether the

Art Unit: 2668

received packet is previously received packet or not is determined, depending on whether it is stored in the receive history table 14");

c. when a packet is transferred (i.e. meeting above step of not previously transferred), adding transfer history information to the packet (paragraph 63, "setting the packet ID 31 of the packet to its own station's [step 506]");

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani in view of Tappan (6,295,296).

Mizutani describes a method (official notice taken that method can be implemented by a processing program) for a wireless system with each interconnecting device (fig. 1, communication terminals 101-116) comprising steps of:

a. transferring a received packet (if judged to be) a kind of packet necessary to be transferred to a different connecting device (paragraph 64, "If [packet's address] not the terminal that starts communication") and which is a packet not previously transferred by the interconnecting device (paragraph 64, "It is determined whether the received packet is previously received packet").

b. when the packet is received by the interconnecting device, also judge based on transfer history information of the received packet, whether or not the packet is a packet previously transferred by the interconnecting device (paragraph 63, "Whether the received packet is previously received packet or not is determined, depending on whether it is stored in the receive history table 14");

c. when a packet is transferred (i.e. meeting above step of not previously transferred), adding transfer history information to the packet (paragraph 63, "setting the packet ID 31 of the packet to its own station's [step 506]");

Mizutani lacks what Tappan further describes, comprising the further steps of:

d. in a case the received packet needs (has been judged by the router) to be transferred, and, in addition, needs to be transmitted to a terminal (customer router) under the control of the interconnecting device (egress router);

e. transmitting the packet to the terminal (customer router) with the transfer history information being removed from the packet when the packet is transmitted to the terminal under the control of the interconnecting device (egress router) (col. 4, lines 34-39, "egress router PE1 forwards the packet to a further customer router CE1. In doing so, it performs .. shim-header removal).

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the removal of the appended fields from a network-switching specific packets' header to the method of Mizutani. The motivation being that a network edge (egress) router which accepts packets with header containing appended fields would like to be compatible with a typical customer router which has a standard (non-

appended) header format (Tappan, col. 4, lines 37-39, "Customer router CE1 does not employ label switching") so that the egress router may forward data to the customer router which ultimately forwards the data to the final destination (customer).

5. Claims 2-3, 7-8, 13, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani as applied to claim 1 above, and further in view of Tappan (6,295,296).

Regarding claims 2, 7, 13 and 15, Mizutani describes all limitations as set forth in claims 1, 6 and 12 respectively.

Mizutani lacks what Tappan further describes, comprising the steps of:

a. in a case the received packet needs to be transferred, and, in addition, needs to be transmitted to a terminal (customer router) under the control of the interconnecting device (egress router)

b. transmitting the packet to the terminal (customer router) with the transfer history information being removed from the packet when the packet is transmitted to the terminal under the control of the interconnecting device (egress router) (col. 4, lines 34-39, "egress router PE1 forwards the packet to a further customer router CE1. In doing so, it performs .. shim-header removal).

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the removal of the appended fields from a network-switching specific packets' header to the method of Mizutani. The motivation being that a network edge (egress) router which accepts packets with header containing appended fields would

Art Unit: 2668

like to be compatible with a typical customer router which has a standard (non-appended) header format (Tappan, col. 37-39, "Customer router CE1 does not employ label switching") so that the egress router may forward data to the customer router which ultimately forwards the data to the final destination (customer).

Regarding claim 14, Mizutani and Tappan describe all limitations of claim 3. Mizutani further describes a wireless system with interconnecting devices (fig. 1, communication terminals #101-116 connecting to network #100 [LAN backbone], where official notice has been taken that the interconnecting device may be implemented via wireless) and wireless terminals enabled to exchange packets with wired (LAN backbone) side (Mizutani, paragraph 3).

Regarding claims 3 and 8 Mizutani describes that the transfer history information includes device identifying information of a device by which the packet is transferred (paragraph 63, "setting the packet ID 31 of the packet to its own station's [step 506]").

6. **Claims 4-5, 9-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani in view of Tappan as applied to claim 3 above, and further in view of Horikawa (6,947,423).

Mizutani and Tappan describe all limitations as set forth in claims 3 and 7 respectively. Tappan further describes the appended header fields are added in sequence (col. 3, lines 27-29; also fig. 5).

Mizutani and Tappan fail what Horikawa describes as the device identifying information (MAC address) is added to the device identifying information of a device performing immediately preceding transfer (col. 6, lines 37-39, "The MPOA server at the previous hop adds a MAC address of a transmission network interface toward a target or the next hop to the NHRP resolution Request packet".)

It would have been obvious to one of ordinary skill in the art at the time of invention to append the MAC address (device identifying information) to the received device identifying information. The motivation being that this allows the current interconnecting node may to be able to collected previous interconnecting node information (Horikawa, col. 14, lines 6-9).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 5:30AM - 2:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2668

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong
Examiner
Art Unit 2668

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CHIEH M. FAN
PRIMARY EXAMINER